

JPRS-UAG-84-009

27 March 1984

USSR Report

AGRICULTURE

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MAJOR CROP PROGRESS AND WEATHER REPORTING

INCREASED CONCERN REQUIRED FOR WINTER GRAIN CROPS IN KAZAKHSTAN

Moscow PRAVDA in Russian 20 Sep 83 p 1

/Article: "Sowing of Winter Crops"

/Text/ The autumn fields are ablaze with color. Included in the glitter are unharvested tracts of wheat. The freshly plowed land is turning black in color. And in some areas the green winter grain crops have already made an appearance.

Nor is autumn restricted to being a period only for the harvesting of crops. It is also a busy sowing period for farmers in many of the republic's oblasts. The kolkhozes and sovkhoses in western Kazakhstan and in the southern, southeastern and virgin land oblasts must sow winter crops for grain and green feed on more than 2 million hectares. The winter crops have already been planted on almost one half of the planned area. This year the sowing work in the republic will be carried out at a higher tempo than in past years. The farms in Aktyubinsk and Semipalatinsk oblasts are sowing winter crops for grain in excess of their tasks. The sovkhoses and kolkhozes in Uraisk Oblast are close to completing their planned sowing work. The farms in the southern oblasts have commenced their work out on the winter crop fields, where sowing must be carried out on an area of approximately 1 million hectares.

Winter crops play a tremendous role with regard to solving the task of further increasing the production of grain. The experience of leading sovkhoses and kolkhozes throughout the republic testifies to the fact that under the arid conditions found in many oblasts of Kazakhstan the winter crop fields are considerably more productive than the spring crop fields. This has been borne out by this current year.

In Chimkent Oblast, where winter crops occupy more than 430 hectares, more than 14 quintals of grain were obtained from each hectare. The winter crops themselves furnished an average of 20-23 quintals. And such farms as the kolkhozes imeni Kirov, Mankent and Pobeda in Sayramskiy Rayon gathered in an average of 35-40 quintals. The grain growers at the Pobeda Kolkhoz in Lengerskiy Rayon achieved a record cropping power for their winter crop fields -- 45 quintals of grain per hectare. The farmers in Tyulkubasskiy Rayon obtained 27 quintals of grain from each of 23,000 hectares.

Many farms in Uralsk and Aktyubinsk oblasts are obtaining high Mironovskaya-808 winter wheat yields almost annually. This year winter wheat was grown on more than 9,000 hectares at the Sovkhoz imeni Gazeta Pravda in Dzhambeytinskiy Rayon in the Priural'ye region. This "Mironovskaya" wheat furnished 27-29 quintals per hectare over large areas. As a result of the winter wheat, the farm's average yield was 21 quintals.

Over a period of several years, severe drought conditions have prevailed in Semipalatinsk Oblast and in many rayons in the Semirech'ye region. But comparatively stable yields are being obtained in those areas where winter crops are under cultivation. It was no accident, for example, when the authorities in Semipalatinsk Oblast resolved this year to increase considerably their winter grain crop areas. Such areas are also being expanded on farms in Uralsk, Aktyubinsk, East Kazakhstan and other oblasts.

However the cultivation of winter crops in Kazakhstan has its own peculiarities and they are associated with the differences in the climatic zones. First of all, the sowing schedules for these zones must be observed in a very strict manner. Whereas in the western and eastern oblasts the sowing of winter crops can be started immediately after the fields have been harvested, in southern Kazakhstan the best period is from the middle of September to the middle of October. Thus a very busy period is once again at hand for the grain growers in Alma-Ata, Taldy-Kurgan, Dzhambul and Chimkent oblasts.

The timely and high quality carrying out of the autumn sowing work is of special importance for the farms in these oblasts, since their grain balance is formed based mainly upon the winter crops. The chief task of the specialists at the present time is that of establishing a reliable foundation for the future harvest. A winter crop harvest consists of many components and all measures must be undertaken in the interest of ensuring high yields.

Under conditions involving a deficit of non-irrigated land, priority importance is attached to ensuring that there is productive moisture in the soil for the winter crops. It thus follows that importance is also attached to the predecessor crops for the winter crops. Many years of experience accumulated at leading farms reveals that the best predecessor mode for winter wheat is that of clean fallow. It ensures a maximum accumulation of moisture and it improves the nutrient regime for the plants. However, an entire complex of agrotechnical measures must be carried out on the winter crop fields in order to guarantee a high return. This includes the soil tilling methods and the efficient use of organic and mineral fertilizers and correct seed sowing norms.

Unfortunately, proper attention is not being given to the agricultural practices being employed in the cultivation of winter crops on some farms and, as a result, the cropping power for these crops is still low. Here a shortfall in grain or green feed is often blamed upon the prevailing annual weather conditions. At the same time, the experience of sovkhozes and kolkhozes where there is a high culture of farming indicates that it is possible to stabilize the winter crop yields. For example, the Kaskelenskiy and Iliyskiy sovkhozes in Alma-Ata Oblast, which mastered the zonal system developed in collaboration with scientists of the Kazakh Scientific-Research Institute of Farming, are

obtaining stable yields despite severe non-irrigated land conditions. During favorable years, the grain yields here amount to more than 20 quintals per hectare.

The winter crops represent an important reserve for increasing the production of grain. Nor are we speaking here only of wheat. Kazakhstan can and must increase its production of valuable rye grain. Up until recently, this crop was grown on many farms mainly for obtaining green feed for the livestock. But rye has long been considered to be mainly a food product. Thus one can readily understand why the task of increasing the production of rye grain has been included in the Food Program.

This year the sowings of this crop for grain purposes have been increased somewhat throughout Kazakhstan. The profitability of rye as a crop is underscored by its cropping power. On a majority of the farms engaged in growing this crop, the rye grain yields per hectare are higher than those for wheat. Almost 19 quintals per hectare were obtained from the entire area sown in this crop in East Kazakhstan Oblast. The republic's average cropping power turned out to be higher by 1 quintal than that for all of the grain crops.

The plans for the 11th Five-Year Plan call for a further increase in grain production in Kazakhstan. In order to solve this task, it will be necessary to utilize all available reserves, including an expansion in the winter crop sowings, an improvement in their structure and the introduction into operations of highly productive and intensive grain crop varieties. The same amount of attention must be given to the winter crop fields as is being given to the spring crop fields.

7026

CSO: 1824/227

MAJOR CROP PROGRESS AND WEATHER REPORTING

PROGRESS OF KUBAN WINTER CROPS REPORTED

Moscow SEL'SKAYA ZHIZN' in Russian 15 Jan 84 p 1

[Article by Yu. Semenenko (Krasnodar Kray): "On the Winter Fields of the Kuban"]

[Excerpts] Winter crops are a subject of special concern to Kuban grain growers. This year the area planted in these crops amounts to 1.8 million hectares. On the majority of farms they are persistently working on the yield of winter crops during the winter time as well. Specialists attentively keep track of the condition of each field, as a result of which they manage to avoid mistakes in selecting agricultural devices and they can carry out various work promptly. The goal is to achieve maximum preservation and optimal density of the planted areas and to conduct the "repair" of the winter fields well so as to ensure large threshings of grain.

Much has been done to accomplish this in the kray. Wheat and barley have been planted at the best times. Granulated superphosphate has been placed in the rows almost everywhere, which has increased the plants' resistance to unfavorable weather conditions and fungal diseases. The areas planted in highly productive strains have expanded considerably -- Krasnodarskaya-57, Partizanka, Olimpiya and Obriy wheat and Meteor and Tsiklon barley.

Vigorous shoots have been obtained throughout the entire area, and they have bushed out on the irrigated fields. But because of the summer and fall droughts the nitrification of organic substances in the soil was weaker, and the warm weather in December and the beginning of January, having caused renewed growth of the plants, increased the plants' need for nitrogen. Phosphorus had been applied to the fields in autumn and there was enough potassium.

"This is why it was decided during a favorable winter to top dress all the planted areas with nitrogen fertilizers. We are trying not to give them excessive doses. On the one hand this can lead to increased growth and create a false impression that all is well, and on the other it can weaken the resistance of wheat and barley to diseases, and their stalks can bend over too early. An average of about 2 quintals in physical weight of ammonium nitrate are being applied per hectare," says the head agronomist of the council of the kray agro-industrial association, A. M. Isaykin.

There are now 70 aircraft from agricultural aviation in operation in the Kuban. They apply fertilizers to 12,000-15,000 hectares each day. A total of about 800,000 hectares of winter crops have been top dressed. The ammonium nitrate is applied first to the planted areas where there were previously row crops, where the nitrification processes in the soil were especially suppressed, and also fields which had previously received no mineral fertilizers or manure.

I had occasion to travel through the kray from one end to the other and saw for myself how effective top dressing is: the plants become stronger right before your eyes.

But the work on areas planted in winter crops does not end with top dressing. Now one can see people placing poisoned bait to fight mice on the fields of Ust'-Labinskiy, Timashevskiy, Leningradskiy, Korenovskiy and many other rayons. According to the predictions of the plant protection service, an outburst of proliferation of these dangerous rodents was expected. The specialists were not mistaken. In order to quell the outburst, small amounts of grain treated with toxic chemicals are being placed in the mouse holes, they are neatly covered with dirt, and then they are packed down with the foot. The first areas to be treated were the forest strips and perennial grasses, from where the mice usually "attack" the winter fields. On certain sections this work is already being done for a second time. Biological measures are being taken in addition to chemical ones.

On the fields of certain farms where the wheat was planted after spike crop predecessors there has been an appearance of grain carabid. True, this insect is not very active yet because it is not warm enough. But the grain growers are trying to prevent even an insignificant amount of damage to the crop from it. They are accumulating toxic chemicals, preparing them for application and checking on each field. This is now an important part of the work of specialists.

Various methods of determining the survival of winter crops are being used on the farms of the kray. All of them serve as an important instrument for selecting agricultural tactics. For instance, in certain rayons they have noted that because of the sharp drops in temperatures, on individual fields there has been damage to the root system of the barley. Seeders were immediately sent out into the fields. The barley is undersown with winter wheat, which is quite capable of going through the process of vernalization and producing a full-value harvest. In the kray as a whole the "repair" of winter crops has already been conducted on more than 15,000 hectares. The work is continuing, and a sufficient quantity of seeds has been stored up for it. As for nitrogen fertilizers, many farms are complaining about a shortage of them. They are also alarmed about the shortages in the deliveries of 2M-4XII herbicides against dicotyledonous weeds for the first quarter. And yet chemical weeding time is not far away. There are not enough preparations for fighting against carabids and chinch bugs. Sel'khozkhimiya associations must be more efficient.

One cannot but discuss the following. We have constructed 400 take-off and landing strips on the kolkhozes and sovkhozes of the kray, but only 62 of them

are paved. This greatly reduces the effectiveness of the work of agricultural aviation on days of wet weather. Nor is it normal that on a number of farms in the northern and foothill rayons the observation of the condition of the planted areas is not organized on the proper level. It is necessary to improve the organization of top dressing of winter crops and the fight against pests in these zones.

Every day -- to the harvest! Grain growers of all farms of the Kuban should arm themselves with this motto of the leading collectives.

11772

CSO: 1824/218

MAJOR CROP PROGRESS AND WEATHER REPORTING

UDC 633.15:632

PLANT RESISTANCE TO EUROPEAN CORN BORER

Krasnodar SEL'SKIYE ZORI in Russian No 9, Sep 83 p 22

[Article by A. Smirnova and D. Papazov, scientific associates of the Krasnodar Scientific Research Institute of Agriculture: "Resistance to European Corn Borer"]

[Excerpts] The European corn borer is one of the most widespread pests of corn. In recent years in Krasnodar Kray the damage to this crop from the first generation of the European corn borer (especially in the northern and central zones) has reached 49 percent and from the second generation 87.8 percent.

The density of the planting also has an influence on the damage to corn plants from European corn borer. In all of the lines that were investigated, regardless of their ripeness and supplies of mineral nutrition, the infestation with the pest when the density was 60,000 plants per hectare was considerably less than when there were 40,000 plants per hectare, that is, the moth prefers for its development sparser plantings on fertilized soil.

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CSO: 1824/218

MAJOR CROP PROGRESS AND WEATHER REPORTING

UDC 632.4:633.11

TECHNOLOGY FOR FIGHTING PESTS, DISEASES DISCUSSED

Moscow ZASHCHITA RASTENIY in Russian No 11, Nov 83 p 13

[Article by O. N. Krasnokutskaya and M. M. Vasyutin, senior scientific associates of the Krasnodar Scientific Research Institute of Agriculture, Yu. A. Kharchenko, junior scientific associate, and L. D. Prihod'ko, laboratory assistant: "Improved Technology"]

[Excerpts] In Krasnodar Kray there are still a number of fields where root rot is developing -- cercosporellosis (causal organism -- *Cercospora herpotrichoides*) and ophiobolosis (causal organism -- *Ophiobolus graminis*). In the central and southern rayons one encounters cercosporellosis more frequently, and ophiobolosis is found mainly in the northern rayons.

The weather conditions of 1981 and 1982 (mild winter and damp autumn and spring) were favorable for the development and dissemination of these diseases. The largest quantity of diseased plants (more than 50 percent on certain fields) was found in places where wheat had been planted after the same kind of wheat predecessors and where the proportion of spike crops that are susceptible to the diseases -- wheat and barley -- reached 50-60 percent in the structure of the field crop rotation.

Root rots were especially dangerous when the plants were infested early: they died and, consequently, the entire crop was lost. With late infestation the plants suffered, the length of the spike decreased by 7-22 percent, the number of kernels in it decreased by 18-44 percent and the weight of 1,000 kernels decreased by 7-32 percent.

In 1982 the Krasnodar Scientific Research Institute of Agriculture checked under production conditions and tested the improved technology for the cultivation of winter wheat on the kolkhozes imeni Lenin and Druzhba in Kalininskiy Rayon, imeni Shevchenko in Tbilisskiy Rayon, and Sovetskaya Rossiya in Pavlovskiy Rayon. The plants were treated with fundosol only once during the spring, at the beginning of stem extension, since the weather conditions in the autumn made it impossible to carry out the treatment. But even one spraying with the fungicide produced a significant additional yield of grain.

Thus the experimental data and the results of production testing prove that the improved technology for cultivating winter wheat after spike crops and the utilization of agrotechnical and special protective measures provide for more complete realization of the potential capabilities of the wheat fields and increase the gross yields of grain.

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11772

CSO: 1824/218

MAJOR CROP PROGRESS AND WEATHER REPORTING

BRIEFS

KUBAN PLANTING--Krasnodar--The sets of planting equipment have gone out onto the steppes of the Kuban. Yesterday the farmers began to plant barley and wheat -- the main winter crops. [Text] [Moscow TRUD in Russian 16 Sep 83 p 1] 11772

TOP DRESSING--Krasnodar--Farmers have begun to tend the winter crops on the kolkhozes and sovkhozes of the kray. In keeping with recommendations from scientists and specialists, nitrogen fertilizers are being applied now. It has been decided to top dress no less than 400,000 hectares of planted area with ammonium nitrate in November-December. Each year 65 aircraft from agricultural aviation and dozens of fertilizer spreaders are used to apply fertilizers by the surface method. Each hectare receives up to 30 kilograms of active nitrate substance. The rates of top dressing will increase in the next few days. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 20 Nov 83 p 1] 11772

KUBAN GRAIN--Krasnodar Kray--Grain growers of the Kuban have begun an important and responsible job: caring for the winter crops. In the opinion of specialists, now is precisely the most favorable time for top dressing plants that are going into the winter period, undersowing sparse areas and conducting other agrotechnical measures that contribute to the survival of the plants and will provide a significant additional yield to the crop next summer. On the majority of fields of winter crops in the Kuban not only has the varietal composition been improved, but considerably larger areas are being planted in the highly productive new strains of winter wheat, Krasnodarskaya-57, Partizanka and Olimpiya, and winter barley -- Tsiklon, Novator and Debyut. Almost everywhere the barley and wheat seeds have been placed in the soil along with phosphorus fertilizers, and the progressive cross sowing and diagonal cross sowing methods of planting have been applied on half of the area. More nitrogen fertilizer than usual has been applied to the soil. Nowadays on each kolkhoz and sovkhoz they repeatedly examine the fields, and they send technical equipment and fertilizers to the fields that are most in need of certain work to care for the planted areas. The weather is not coddling the Kuban workers this year. Cold torrential rains have become more frequent and the air temperature has dropped sharply. It is not a good time for the tractor and truck drivers to be on the fields. So the aviators -- the winged grain growers -- are coming to the rescue. As soon as the sky clears or there is even a small "window," aircraft loaded with mineral fertilizers ascend into the air and cast life-giving clouds for the plants. [Text] [Moscow TRUD in Russian 26 Nov 83 p 1] 11772

SEED IMPROVEMENT--Krasnodar--Work is continuing on the kolkhozes, sovkhoses and interfarm enterprises of the kray for improving the class ratings of seeds of spring crops and perennial grasses. The processing of the seed supply is being completed. Old strains and seeds of low reproductions are being replaced with new strains and seeds of high reproductions. Practically all of them meet the requirements of the first and second classes. Only first-class seed material has been used on most of the areas planted in peas, rice, soy beans and sun flowers. Plenty of high-quality sugar beet seeds have been stored up. Even today it is possible to plant on the farms of Anapskiy, Kurganinskiy and Timashevskiy rayons and the suburban sovkhoses of Krasnodar. [Text] Moscow SEL'SKAYA ZHIZN' in Russian 31 Jan 84 p 1] 11772

GARDEN WORK--The Black Sea winds have brought warmth to the Kuban steppe. Taking advantage of the "windows" in the weather, the farmers of the central and southern rayons took the technical equipment out onto the fields yesterday. They are harrowing the fallow, conducting preplanting cultivation, and planting oats, barley, grasses and other early spring crops. Everything is ready for mass planting: technical equipment, seeds and mineral fertilizers. [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 31 Jan 84 p 1] 11772

PRODUCTIVE WINTER CROPS--Alma-Ata--The farmers in the western and southeastern oblasts of Kazakhstan are setting aside their best lands for the winter crops. The winter crop fields already number 1 million hectares -- one fifth more than last year. Fallow land is being included in the sowing plans and high quality seed is being placed in the soil. Experience has shown that under local conditions the winter crops are more productive than the spring grain crops. This autumn the grain crops will occupy more than 2 million hectares of fields. [Text] [Moscow GUDOK in Russian 24 Sep 83 p 1] 7026

SNOW RETENTION WORK--Alma-Ata--The machine operators in Kokchetav Oblast were the first in Kazakhstan to commence snow retention work on a mass scale in the second track. In addition to the conventional snowplows, the virgin land workers are also making extensive use of implements intended for the clearing of roads. This is promoting more rapid handling of the snow cover. White plowing work is presently being carried out on 600,000-700,000 hectares of land daily and this exceeds the rates for last year. [Text] [Moscow TRUD in Russian 8 Feb 83 p 1] 7026

AUTUMN PLOWING OPERATIONS--Kustanay, 25 Oct--The farmers in Taranovskiy Rayon were the first in the oblast to fulfill their autumn plowing task. This success was achieved as a result of the units being operated in two shifts, efficient technical servicing of the tractors and the carrying out of a competition among the machine operators aimed at achieving maximum productivity and high quality tilling of the soil. The autumn plowing work is nearing completion in Kustanayskiy and Kamyshtinskiy rayons. A high operational tempo is being maintained by the farms in Ordzhonikidzevskiy and Fedorovskiy rayons. The grain-growing virgin land workers long ago became convinced that only strict observance of the requirements set forth for the soil-protective system of farming will produce high yields. This is why the oblast's farms are employing only anti-erosion implements in carrying out their autumn plowing work. [by I. Puzyrev] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 26 Oct 83 p 1] 7026

AUTUMN PLOWING COMPLETED--Alma-Ata, 4 Nov--The machine operators of Kazakhstan have completed their autumn plowing work. Approximately 19.5 million hectares of arable land -- one and a half million more hectares than last year -- have been prepared in behalf of next year's crops. The overwhelming portion of this land was tilled using sweeps, thus eliminating soil erosion completely. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 5 Nov 83 p 1/ 7026

WINTER CROP SOWINGS COMPLETED--Alma-Ata, 27 Oct--The farmers of Kazakhstan achieved a labor victory during their shock pre-October campaign. They completed their mass sowing of winter crops during the best periods. Wheat, barley and other grain crops have now been planted on approximately 2,300,000 hectares. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 28 Oct 83 p 1/ 7026

CONCERN FOR FUTURE HARVEST--Autumn -- a period for summarizing results and a period for reflection. An analysis of grain production at kolkhozes and sovkhozes throughout the oblast reveals the following: the grain growers in Chimkent Oblast still have large reserves at their disposal. The chief such reserves are improvements in the culture of farming and smoothing out of the summary indicators. A record yield -- 47.3 quintals of grain from non-irrigated land -- was obtained at the Pobeda Kolkhoz in Lengorskiy Rayon and at a neighboring farm, the Gornyy Sovkhoz, only 20.4 quintals of threshed grain were obtained from each hectare under equal conditions. The highest grain crop yield from non-irrigated land was obtained on farms in Tyulkubasskiy Rayon -- 28 quintals. But here the cropping power varies greatly. Although the Azatlyk and Algabas kolkhozes obtained 33 and 35 quintals of grain per hectare, only 20 quintals were obtained at the Kolkhoz imeni Dzhambul. The oblast's farmers are presently devoting attention to the cares and concerns associated with the future harvest. The sowing of the winter crops has been completed 10 days earlier than was the case last year, with one half of the areas being occupied by the locally bred Krasnovodopadskaya-210 wheat variety. The Zavet variety of barley, which has proven its worth when grown under southern Kazakhstan conditions, has been planted on 50,000 hectares. The cleaning of rice seed has commenced on farms in the Chardara region. The preparation of corn seed grain is proceeding at a maximum tempo at the Tyulkubas Grading Plant. /Excerpt/ /by A. Utyaganov/ /Moscow SEL'SKAYA ZHIZN' in Russian 5 Nov 83 p 1/ 7026

2,500 SNOWPLOWS--Kokchetav--The oblast's farmers have commenced their snow retention work. It must be carried out on an area of 4 million hectares. More than 2,500 snowplows have been moved out onto the kolkhoz and sovkhoz fields. Their operations have been organized into two shifts using the large group method. The snow embankments are being created one after another at a distance of 3-4 meters and this is promoting a good accumulation of snow. /Text/ /Moscow TRUD in Russian 11 Dec 83 p 1/ 7026

HEAVY NOVEMBER SNOWFALL--Kokchetav, 2 Dec--An unusually large amount of snow fell throughout the oblast during the last 10 days in December. And immediately thereafter precipitation accumulation work was begun out on the fields. Machine operators at the Chkalovskiy rayspetskhozob'yedineniye N. Vasilenko and the Lityushkin brothers operated their equipment in a selective and productive manner. The farms in Kzylytuskiy, Leningradskiy and Kelleroyskiy rayons have commenced their snow retention work. /by A. Lysenko/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 3 Dec 83 p 2/ 7026

FINE SEED--Kustanay, 5 Jan--As a result of repeated processing, grading and the exchanging of some batches, the grain growers in Naurzumskiy Rayon were able to improve all of their seed to a high condition. Almost all of the grain seed checked throughout the oblast meets the standard for 1st and 2d class. Almost 40 farms have already completed their work with the seed, raising it to a high grade. /by Ye. Dutov/ /Excerpts/ /Moscow SEL'SKAYA ZHIZN' in Russian 6 Jan 84 p 1/ 7026

SEED PREPARATION COMPLETED--Karaganda--The oblast's farms have completed their preparation of grain and pulse crop seed. All 137,000 tons of this seed are of 1st or 2d class quality. The seed fund has been augmented to a substantial degree by new regionalized varieties -- Orenburgskaya-2 wheat and Donetsk-4 barley. /Text/ /Moscow TRUD in Russian 7 Jan 84 p 1/ 7026

MASS WATERINGS--Alma-Ata, 23 Jan--Taking advantage of the favorable weather conditions, the republic's land reclamation specialists commenced water supply irrigation measures for their winter grain crop sowings on a mass scale. Pumping stations and artesian wells which had been repaired ahead of schedule were included in this work. More than one half million hectares of land throughout the republic have already been provided with the required supply of winter moisture. The work is also being carried out in the northern oblasts where frosts are being experienced. Here the land reclamation specialists are employing a unique method. Initially the reservoirs and canals are being filled to the maximum possible degree and thereafter their levels are lowered sharply. Located under a thick coat of ice, the water proceeds unhindered to the sowings. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 24 Jan 84 p 1/ 7026

FINE SEED PREPARATION--Aktyubinsk, 8 Dec--The farmers in Aktyubinsk Oblast have completed preparing their grain and pulse crop seed. The inspection of this seed was completed today. All 250,000 tons of the seed have been classified as being of 1st or 2d class quality. Over the past few years, the grain crop varieties have been renewed throughout the oblast. A number of widely introduced varieties -- Saratovskaya-42 and Nakat wheat, Donetsk-8 barley and Start millet -- are drought resistant, highly productive and do not lodge. The quality of the seed preparation work has been improved. As a result of the placing in operation of new mechanized threshing floors and improvements being carried out in existing ones, the grain growers were able to improve their seed to a high condition in good time and to place it in storage in a reliable manner and one and a half times more rapidly than was the case earlier. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 9 Dec 83 p 1/ 7026

WINTER CROP SOWINGS EXPANDED--The sowing of winter crops throughout the republic has been completed earlier than was the case last year. They have been planted on 2,282,000 hectares -- 111 percent of the area planned. More than 1.6 million hectares were set aside for the winter grain crops. The farms in Aktyubinsk, Semipalatinsk and Uralsk oblasts have expanded their winter crop areas considerably. /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 30 Oct 83 p 1/ 7026

CSO: 1824/227

LIVESTOCK

OVERVIEW OF LITHUANIAN LIVESTOCK SECTOR

Conference Examines Progress, Problems

Vilnius SOVETSKAYA LITVA in Russian 22 Dec 83 pp 1-2

[Article: "More Livestock Production During the Winter Months"]

[Text] On 14-21 December of this year zonal meetings took place in Vilkavishskiy, Ukmergskiy, Pakruoyskiy and Kel'meskiy rayons for agricultural workers in order to discuss the overwintering of livestock. Participating in the meetings were directors of agricultural administrations of rayon executive committees, heads of agricultural departments of party rayon committees, senior specialists of zootechnical and veterinary services, directors of breeding enterprises and scientists. They became acquainted with innovations in production introduced on leading farms and exchanged experiences.

Present at the meetings were responsible workers of the Central Committee of the Lithuanian CP, the republic's council of ministers, the agricultural ministry and a number of departments of the agro-industrial complex.

The deputy chairman of the republic's council of ministers, Yu. Bernatavichyus, the agricultural minister, M. Grigalyunas and other administrative workers discussed goals for the production of livestock products and for their sale to the state.

At the meeting it was noted that the status of livestock raising has improved somewhat this year in comparison with preceding years of the 11th Five-Year Plan. Thus, the republic fulfilled the annual quota for the sale of milk to the state in late October and for the sale of eggs in late November. The annual quotas for the sale of meat have also been fulfilled. Increased production of all types of livestock products was achieved by means of increasing the indicators of intensiveness in livestock raising; feed, labor and other expenditures decreased. A decrease in the cost of livestock products is expected.

As emphasized at the meetings, while making a positive evaluation of the success that has been achieved there should be no place for a mood of complacency because in livestock raising there are still many unutilized reserves. For this reason each enterprise and farm should pay attention as a mark of approval to a recent initiative by a group of enterprises regarding

instituting socialist competition to increase the production of livestock products during the winter months and in the course of the coming years. First of all it is essential to efficiently distribute and utilize feeds, which were procured in a larger quantity this year than last. In the opinion of scientists and specialists, the best feed should be given to pedigree calves, dry cows and heifers whereas the herd that is being fattened should be given as much silage and solomazh [Translation unknown] as possible. In those places where there is a more acute shortage of concentrates (the need for these is higher in hogs, calves, fresh milk and more productive cows) a part of the concentrate should be replaced by grass meal in the rations of hogs and calves.

It is important not only to thoughtfully distribute feed but to also prepare it properly for feeding to animals. Everyone has already become convinced of the fact that livestock eats moist mixtures best. For this reason in enterprises where there are shops for the preparation of these mixtures it is essential to maximally utilize their capacities. In places where such possibilities do not exist feed should be ground and crushed before feeding. Incidentally, not all places have shops of the OKTs [Expansion unknown] type, where it is possible to prepare many mixed feeds with protein supplements. At the same time more attention should be given to accumulating additional feed reserves--feed wastes from meat combines, vegetable bases and public food facilities should be used more extensively in livestock feed. The equal distribution of feed throughout the overwintering period is connected with the efficient utilization of feed. This is why at the end of each month an accounting of the amount of feed that is left should be made. At the same time there should be strict controls over the expenditure of feed.

During the 11 months of this year the republic's enterprises obtained an average of 2,950 kilograms of milk per cow, or 162 kilograms more than during the corresponding period last year. However, we can in no way justify the fact that in Pakruoyskiy, Trakayskiy and Moletskiy rayons less milk has been produced recently than during the corresponding period last year. Incidentally, there are enterprises in which annual milk yield does not reach 3,000. It is essential to improve organization without delay on such farms and to make sure that internal reserves are utilized better. Of course, milk yield should be increased also in enterprises with intensive milk production--livestock should be fed balanced feed and cows should be separated into groups according to productivity.

A curtailment in the herd of cows should not be considered normal. This is partially related to an excessively high level of production. Many productive dairy cows are lost as a result of the inattentiveness of the operators of mechanical milking machines or of their low degree of training. For this reason it is important to utilize the winter period to train them. Valuable experience has been accumulated by a number of enterprises of Ukmergskiy and other rayons, where training classes have been established directly on the farms. Specialists from the rayon associations of Sel'khoztekhnika [Agricultural Equipment Association] are training milkmaids and farm specialists in both theory and practice on a contractual basis with enterprises; they are helping to correctly adjust all supplementary technology, which is visibly advantageous. This type of teaching should be introduced in other regions as extensively as possible.

On the other hand, low-productivity cows that cannot be used for further reproduction purposes should be replaced immediately with good calves, of which more have been raised this year than last. At the same time, calves, especially those that will be used to replenish the herd, should be raised with great care. They should be fed better in specialized groups and an effort should be made to have calves receiving more hay and other good-quality feed during the stall maintenance period increase their weight by 650-700 grams per day up to the age of 6 months; heifers over the age of 6 months--by 550-600 grams per day. It is imperative to improve the feeding of primipara heifers and their care.

Beef is the primary meat sold from all of gross production. Because of the fact that enterprises have large quantities of grass feeds and straw that can be fed to livestock, the conditions for fattening cattle are especially favorable. During overwintering the daily weight gain of livestock should reach no fewer than 650 grams per day. It is essential that specialists from the agricultural administration analyze the local situation in places where the fattening of cattle is poorly organized and take measures to eliminate lags. Livestock that does not gain a large amount of weight should not be kept but animals which are successfully fattened should be fattened intensively and should be delivered at a weight that is reimbursed with a 50 percent bonus.

The meeting's participants noted that this year higher indicators were achieved for pork production than last year. Despite this, the indicators for the intensive fattening of hogs are still insufficiently high and vary widely in various regions. During the overwintering period hogs should be fed quality feed--besides concentrates they should be given more succulent feeds. It is especially important to balance the quantity of protein in rations. During the period of stall upkeep the daily weight gain of the hogs being fattened should comprise no fewer than 450 grams. Meanwhile there are still some enterprises in which hog raising is unprofitable despite the increases in procurement prices. Without intensive feeding of hogs feed is overconsumed here and as a result of the poor care a considerable number of piglets die. This type of mismanagement must be decisively eliminated.

At the present time the concern should be to make sure that next year more piglets are produced on hog-raising farms and that a pedigree nucleus of productive hogs is created. With this goal in mind each enterprise must develop its own fund of concentrates produced there for feeding sows and piglets. It is also very important to improve heating on farms and to create the necessary microclimate.

Almost one-fourth of all pork in the republic is produced in industrial complexes. Here the weight gain in piglets and in the herd of hogs being fattened is basically high. Nevertheless, there are problems--some industrial agricultural enterprises are operating unsatisfactorily, despite the fact that they receive higher-quality feed. The elimination of lags in such complexes should be given much greater attention in such complexes.

Further progress in livestock raising, as was emphasized at the meetings, cannot be considered without considering the mechanization of farms and the

introduction of progressive technology. This is why it is important to utilize feed loaders, feed distributors and other mechanisms in a better way, replacing manual labor. Thus, the work of milkmaids is made easier in places where milk is deposited into milk lines and not into pails. At the present time we have the opportunity to equip such lines on all farms for 200 and more head, but not everyone is rushing to do this. Conditions also exist for a more extensive introduction of progressive technologies such as the flow shop technology for the production of milk and pork, which allows us to further specialize operations and to more successfully deal with the problems of herd reproduction and so forth. Livestock-raising results depend on the working conditions of workers. This is why the directors of enterprises must concern themselves with people--to drive them to work if necessary, to provide work clothes and to provide comfortable rooms to relax in.

With the goal of achieving high final results we should also activate socialist competition among livestock farmers. Every conscientious and creative worker must be encouraged according to his achievements; every act of slackness must be strictly criticized. The introduction of more progressive forms of labor organization, such as collective contracts with internal cost accounting, will have a great effect on raising production indicators. All of this must be at the center of attention of agricultural administrations, rayon executive committees, directors and specialists.

A considerable amount of milk and meat is procured from the population today. The private plot should be given help in the future as well. However, our main goal is to intensify public livestock farming. We must censure the vicious practices of directors of some enterprises who strive to "cover up" inadequacies in the kolkhoz or sovkhoz by means of products procured from the population.

Expressed at the meeting was the certainty that the republic's livestock farmers, in completing the third year of the five-year plan with adequate indicators, will decisively strive toward new successes and will make an even more considerable contribution toward implementing the goals of the Food Program of the country.

UDC 637

Lithuanian Livestock Development, Outlook

Moscow ZHIVOTNOVODSTVO in Russian No 11, Nov 83 pp 6-9

[Article by V. Stankyavichyus, Deputy Agricultural Minister of the Lithuanian SSR: "Increasing Production Output"]

[Text] Agriculture in the Lithuanian SSR is developing in the direction of livestock raising, which meets the natural and economic conditions of the republic more.

In 1982 the enterprises of the public sector received income from livestock raising comprising 81 percent of total income from agriculture.

The main branches of livestock raising are dairy and beef livestock farming and hog-raising for bacon purposes. In addition, poultry raising is being developed intensively. In the republic a great deal of attention is being given to the intensification of farming and livestock raising and to obtaining the largest quantity of production per hectare of land. This is convincingly attested to by the following data: the proportion of agricultural lands in the Lithuanian SSR comprises 0.65 percent of total agricultural lands in the country whereas the republic's share in total meat production is 2.6 percent and in total milk production--2.8 percent.

These achievements became possible as a result of strengthening the material-technical and feed base of livestock raising and of improving breeding work.

A great deal of attention is being given to the transition of livestock farming to an industrial base, especially as applies to dairy farming since this branch is more labor-intensive and requires a high level of work quality. A larger proportion of resources is being allocated for the building of new large dairy farms and complexes and for the renovation and modernization of existing farms and complexes. At the present time most of the cows are maintained in dairy farms and complexes that meet modern needs and that are fully mechanized for milking and for other basic labor processes. With the goal of securing high milk quality dairy blocks with coolers and dairy laboratories have been set up everywhere. The necessary hygienic conditions have been created for workers of dairy farms. A great deal of attention is given to beautifying the surrounding area and roads.

Considerable work has been done to build new and expand and renovate old livestock facilities. Thus, during the last 6 years the number of heifers and head of cattle being fattened in facilities for 200 or more animals has increased by a factor of 3.6; the number of hogs on farms having places for 1,500 or more animals has doubled. This year livestock facilities for 40,000 cattle and 34,000 hogs will go into operation.

Between 1976 and 1982 the level of overall mechanization on cattle farms increased from 24 to 54 percent; on hog farms--from 47 to 72 percent.

Special attention is given to creating the necessary microclimate in livestock facilities. At the present time heating systems have been installed in 50 percent of calf facilities and 82 percent of pig pens and pens housing sows.

Intensive preparations of livestock facilities for the winter upkeep of livestock began in the spring. The repair, disinfection and whitewashing of livestock facilities were completed in mid-September. By this time most of the recently built livestock facilities were put into operation.

Rayon associations of Goskomsel'khoztekhnika [State Committee of the Agricultural Equipment Association] have been very helpful to enterprises in organizing the proper utilization and technical servicing of livestock technology. In almost every rayon well-equipped stations for technical services of livestock machinery and equipment have been established and supplied with trained cadres. Each year associations increase the volume of

services for enterprises in the areas of repairs and technical servicing of livestock-raising and feed-preparation technology. Practically all milking and cooling equipment, computer units and feed shops have been accepted for technical servicing.

A characteristic feature of developing livestock-raising in Lithuania is the concentration and specialization of production with the simultaneous introduction of progressive technology, which facilitate increased productivity and improved work conditions and which secure a high productivity in animals.

On small farms in enterprises milk production has occurred for a number of years with the use of elements of the flow-shop system. This system has been introduced in its entirety on large dairy farms and complexes which house 400 or more cows. Thus, in Zhel'svyale Kolkhoz of Kapsukskiy Rayon in the dairy complex (1,200 places) dairy cows are maintained in three facilities, heifers in the fourth and dry cows in the fifth; there are also birthing rooms and a treatment area. On dairy farms group feeding of cows is effected according to productivity. Primipara heifers are grouped into separate herds.

On all dairy farms the narrow specialization of milkmaid work has been introduced. The responsibility of this specialty is to milk cows and to observe sanitation requirements for producing high-quality milk.

On large hog-raising farms the flow method of pork production is utilized.

Last year in the republic each cow produced an average of 2,977 kilograms of milk. But 1982 was among the most unfavorable years. Locally many efforts are being made to sharply increase the productivity of livestock and to achieve previous record levels. A considerable amount has been done. During 10 months of this year each cow produced an average of 2,539 kilograms of milk, or 163 kilograms more than last year, and gross milk production increased by 7 percent. There are real possibilities this year for increasing the average milk yield of cows to 3,150-3,200 kilograms of milk.

There has been a significant improvement in indicators for raising and fattening animals. In 9 months of this year the average daily weight gain of cattle being fattened comprised 598 grams; of hogs--442 grams, or 75 and 57 grams more than last year respectively. The live weight of livestock sold for beef increased.

According to preliminary data, during 10 months of the current year the average weight of cattle sold to the state was 425 kilograms, or 16 kilograms more than last year. Meat production increased by 15 percent.

However, our possibilities have not been exhausted. Our goal in 1984 is to have each cow produce an average of 3,260 kilograms of milk, to increase average daily weight gain of cattle being fattened to 700 grams and of hogs to 450 grams, and to achieve a significant increase in productivity during the winter period.

An increase in the productivity of livestock is the result of goal-directed breeding work.

An improvement in breeding work and the introduction of new and progressive methods in livestock raising provided the possibility of improving breeding and productive qualities of animals. The proportion of pure-breed cattle is now 81 percent, of class cattle--95, and of class primary sows--81 percent of their total number.

Last year the sperm of the best pedigree bulls was used to inseminate 80 percent of the herd of cows and heifers. On pedigree farms an average of 4,009 kilograms of milk were produced by a single cow and each primary sow produced 22.3 piglets.

The republic's enterprises fully meet their needs for pedigree calves and sell them to enterprises of other republics.

Direct ties between enterprises and enterprises of the processing industry are improving with regard to the reception of livestock products and their transport by vehicles belonging to meat and milk combines. These ties encompass 88 percent of kolkhozes and sovkhozes. In 1982 71 percent of the livestock sold to the state was received directly in enterprises and then shipped out using trucks belonging to the meat combines. This is advantageous both for the enterprise and for the state.

During the reception of livestock in enterprises it is possible to avoid the sale of insufficiently-fattened livestock. In this case, transport is used more effectively and the specialists of enterprises do not waste time accompanying livestock to the meat combine.

The reception of milk in enterprises is becoming more common. In 1982 23 percent of the procured milk was received in them and shipped out by the milk trucks of dairy combines.

In accordance with a work plan by the commission of the agro-industrial complex in the republic measures have been worked out to further expand mutually-advantageous ties between enterprises and procurers. This year 79 percent of the cattle and 27 percent of the milk sold by enterprises to the state should be received directly in enterprises and shipped out by means of trucks belonging to the meat and dairy industry.

Ties between enterprises of the procurement ministry and agricultural enterprises are expanding in the area of mixed-fodder shipments.

A large proportion of livestock production output comes from the private sector. In 1982 it produced 29 percent of the meat, 36 percent of the milk and 37 percent of the eggs. This is the result of work to supply private plots with feeds and to provide incentives for the population to increase the sale of livestock products to the state. In the republic there is a uniform system for supplying private plots with mixed fodder according to what is procured from them--for each kilogram of milk sold according to contracts to

enterprises or directly to the state 200 grams of mixed fodder are issued; for each kilogram of pork (live weight)--2 kilograms; and for each kilogram of rabbit--5 kilograms. The population is given a great deal of help in acquiring young domestic animals. In 1982 citizens were sold 716,000 piglets and 4.9 million head of young fowl. On the average each 100 families got 158 piglets and 965 head of fowl.

Extensive work is being done in the private sector in the area of zoo-technical and veterinary servicing of animals. In 1982 69 percent of cows were inseminated with the sperm of bulls having a high pedigree value.

Measures are being taken to create the optimal conditions for selling products produced in private plots. A broad network of milk-receiving points has been organized. In most enterprises the reception of cattle and hogs procured from the population takes place directly in kolkhozes and sovkhozes by meat combines. Last year the procurement of livestock from the population comprised 17 percent and of milk--31 percent of total procurement in the republic. The private plots of the population sold 52 percent of meat produced and 62 percent of their milk to the state. During 10 months of the current year the proportion of livestock and milk bought from the population increased as compared to the same period last year. During this period over 2,200 kilograms of milk per cow belonging to the population were procured.

With the introduction of complex mechanization and industrial production technology in livestock raising there has been a sharp growth in the need for trained livestock-raising cadres. For this reason special attention is being given to their training. Whereas in 1982 vocational-technical schools prepared 872 operators for livestock farms, including 60 operators of machine milking, this year 1,440 persons have been sent to school, including 726 for the purpose of learning the machine milking operation. Moreover, functioning in all regions are cost-accounting mobile classrooms for training machine milking operators, directors of dairy farms and brigade leaders at their place of work.

Constant attention is given to creating the essential work and relaxation conditions for livestock farmers. All livestock farms are equipped with comfortable rooms to rest in and many also have places to shower.

This year collective contracts are being introduced extensively in livestock farming.

The winter period has arrived. The republic's enterprises prepared intensively for it. One of the most important goals was to significantly increase the procurement of coarse and succulent feeds. As always, a great deal of attention was given to feed production. Since 1959 a comprehensive method of flooding cultivated pastures and meadows has been used in the republic's enterprises. With this method all drainage agrotechnical work, including the application of fertilizer and the sowing of grass mixtures during the year of flooding, is performed by the reclamation organization. The readiness of prepared areas for transfer to enterprises is determined according to productivity--after the first and second cuttings their productivity must not

be below 50 quintals of hay per hectare on peat soils and below 30 quintals per hectare on mineral soils.

This year 19 quintals of hay have been procured per standard head of public livestock. In comparison with last year hay procurement for public livestock increased by 41 percent. Ninety two percent of the hay was dried by means of active ventilation.

Grass meal and chaff occupy an important place in supplying livestock with vitaminous feed. In the republic there are over 900 units producing grass meal and chaff. Over 60 percent of enterprises have them. This year 245,000 tons of grass chaff and over 220,000 tons of grass meal were produced.

Haylage occupies an important place in the total feed balance. Twenty three quintals of haylage have been procured for each head of cattle. In comparison with last year 19 percent more haylage has been procured.

Preservatives were widely used in the procurement of silage. This year 130,000 tons of mixed silage for hogs has been stocked.

A great deal of attention was given to observing the established technological requirements for feed procurement. Rayon veterinary stations organized the efficient determination of hay and haylage quality according to the content of dry substance and carotene. The complete determination of nutrients in all feeds took place in the republic's agrochemical laboratory.

Samples of feeds for laboratory study were selected by committees of specialists from enterprises. Representatives of the state veterinary network were included on all committees.

Measures related to material incentives related to feed quality were established for feed procurement workers. For example, up to 20 percent of wages were paid for the procurement of feed of the highest quality (first class); for feed of the second class-up to 10 percent of wages. As a result of the measures taken the quality of hay, silage and haylage has improved.

Great significance is attributed to the building of storehouses. During the last 4 years the capacity of capital silage-haylage trenches and towers has increased by 1.3 million tons, but this is still insufficient. There is a shortage of capital capacities to store root and tuber crops. This problem must be solved in the near future.

The experience of enterprises shows that the feeding of feed in the form of enriched mixtures increases their effectiveness. This is why the republic has worked out and is implementing an extensive program to build shops for the preparation of moist mixtures of coarse and succulent feeds. In 1981-1982 81 shops were built and equipped with the KORK-15; in 1983 another 129 were built.

During the winter period of 1983/84 210 such shops will be operating. Nevertheless, this will meet the needs of only one-fifth of enterprises. In the

majority of other enterprises feed platforms are being equipped for the grinding, steaming and crushing of coarse feeds with the use of machines and equipment.

This year 70,000 BVD [Protein-vitamin supplements] will be allocated to the mixed-fodder shops of enterprises. In the industrial enterprises of the republic's ministry of procurement the processing of grain from enterprises into mixed fodder is on the increase. This will enable us to enrich 64 percent of the total amount of grain used for feed purposes in the enterprise. In the future it is planned to increase the processing of grain into mixed fodder in state mixed-fodder enterprises as well as in the mixed-fodder shops of enterprises. Special attention is being given to the intensive use of these shops so that they will be able to process more grain from neighboring enterprises since only one-twelfth of kolkhozes and sovkhoses have mixed-fodder shops.

In recent years there has basically been an increase in the demand for mixed fodder for hog-raising and poultry-raising complexes. This refers to high-protein mixed fodder. Nevertheless, the proportion of protein raw materials decreased from 14.9 to 11.4 percent of the total mixed fodder production.

Because of the shortage of protein ingredients there is no possibility of producing mixed fodder for fattening hogs that will be used for the purpose of producing bacon.

The production of ZTsM [Expansion unknown] is expanding with the goal of economizing on the use of whole milk for feeding calves.

During the winter period of 1983/84 special attention will be paid to further intensifying livestock production output. The republic's enterprises have pledged to produce 0.2-0.3 kilograms per cow more than during last year's overwintering period.

We are striving to eliminate some lags in the sale of meat and milk to the state that occurred during the first 2 years of the 11th Five-Year Plan. The lags in the sale of milk to the state have already been eliminated. This year's plans for the sale of all types of livestock products to the state will be overfulfilled.

The republic's livestock farmers are actively implementing scientific recommendations, particularly with regard to intra-enterprise specialization of the branch, to the flow shop system of milk production, to the organization of an optimal work day regimen on dairy farms, to the raising of pedigree heifers and the production of mixed silage for hogs and to the prevention of udder disease in cows.

At the present time the collectives of farms and komsomol and trade union organizations are participating actively in the all-union survey of the organization of labor and culture in livestock raising.

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POTENTIAL TO INCREASE BEEF PRODUCTION IN MOLDAVIA

Kishinev SEL'SKOYE KHOZYAYSTVO MOLDAVII in Russian No 10, Oct 83 p 40

[Article by S. Kilimar, head of the Livestock Department of the scientific-production association "Zarya," candidate of agricultural sciences: "Reserves Still Are Not Used"]

[Text] Practice shows that best results are achieved by complexes at which the requirements of production technology are strictly carried out.

In this plan the work experience of the state complexes for beef production of the sovkhos NPO [scientific production associations] "Zarya," "Grigoriopol'skiy," and "Pogranichnik"--merits attention. These sovkhoses produce an average daily weight gain of 700-800g and the better operators--up to 1,000 g. Just in the first quarter of this year "Grigoriopol'skiy" sovkhos has sold 3,066 head (each--456 kg) for meat with expenditures of 8.4 centner fodder units and 5.3 man-hours for a centner weight gain.

In the system of the MSSR Council of Kolkhozes the Floreshtskiy, Suvorovskiy, Dubossarskiy and Kriulyanskiy interfarm complexes lately have been achieving high production indices. In 1982, the Floreshtskiy complex overfulfilled the production plan for gross weight gain by 140 percent and sold 1,853 tons of beef (live weight of each head--416 kg) to the state. The Suvorovskiy complex fulfilled its annual plan for producing weight gain by 104 percent. It is also dealing successfully with the program for this year.

But, on the whole, there is considerable underutilization of the capacities established for beef production. The main reasons for this are technological violations, poor work discipline of livestockmen, inadequate standard for feeding livestock, unsatisfactory quality of fodder, poor fodder processing and insufficient enrichment of deficient food elements, and respiratory and gastrointestinal diseases of young animals.

All this restrains the complete realization of the genetic potential of the animals. During the intensive raising of calves to the age of 15-16 months for meat the interfarm beef production complexes at the available production capacities could double meat production and practically guarantee the raising for meat of the entire replacement herd of young stock in the kolkhoz sector.

Our studies have established that Red Steppe and Simmenthal calves of stock populations, bred in the republic, display high indicators for meat productivity, and during intensive raising to the age of 1 year reach the respective weights of 360 and 410 kg. The young of a new type of black spotted cattle, produced in the republic, are characterized by high fattening and meat qualities. In experiments on intensive raising of calves for meat to the age of 15 months the black spotted hybrids, obtained on the basis of the Red Steppe breed, had an average standard weight of 501 kg and those obtained on the basis of the Simmenthal breed--516 kg.

One of the efficient methods for intensification of beef production is industrial crossbreeding of cows, bred in Moldavia, with bulls of specialized meat strains. Best results are obtained with use of Sharolezskaya and Hereford stocks. The Hereford hybrids are born relatively small and, whenever necessary, Hereford bull semen should be used in calf complexes.

In raising replacement calves to 340-400 kg and to an age of 18 months the death of young animals is reduced to a minimum. Use of 80 percent of the brood animals is sufficient for normal reproduction of the herd, and the other 20 percent may be set aside for crossbreeding. This would make feasible an additional production of at least 12,000 centners of beef annually in the public sector of the republic.

Organization of standard feeding is an important factor in the intensification of beef production as it determines to a significant extent the level of animal productivity, quality of production obtained from animals, and profitability of complexes.

An 800-900 g average daily weight gain may be attained with minimal concentrated fodder expenditures with preparation and use of high quality silage, haylage, hay, grain plant straw, corn stalks and other leftovers from fields, gardening and viticulture and food industry enterprises and with skillful use of sulfur- and nitrogen-containing synthetic substances, microelements and other fodder additions for fattening of cattle. We recommend that industrial complexes use 35-40 percent concentrates in the ration composition for animals to be sold for meat at the age of 15-18 months, and 45-50 percent for animals whose fattening ends at the age of 13-14 months.

Realization of a comprehensive intensification program of fodder production must also play an important role. It is essential to set up a permanent fodder base with maximal use of irrigation, provide each animal with 25-30 centner feed units annually, increase the areas for lucerne, silage corn, peas and beans, and change over to a year-round single type of feeding with a total specific weight of haylage and silage in the ration composition, and of high energy granules in the final fattening stage. Each complex should have an operative fodder line or preparation of fodder mixtures to make better use of fodders, vegetable and food wastes, and fodder additions.

All these measures together with efficient operation of veterinary work and maintenance of technology allow for utilization of the available potential in beef production.

LIVESTOCK

ARMENIAN ADVANCES IN CATTLE BREEDING DISCUSSED

Yerevan KOMMUNIST in Russian 22 Jan 84 p 1

[Article by G. Giloyan, docent in the Department for Breeding Agricultural Animals of the Yerevan Zootechnical-Veterinary Institute: "'Corrections' in Genetics"]

[Text] The problem of increasing the productivity of livestock farming is one of the most important, according to the Food Program. We breeders will play a special role in solving this problem. We all know that the intensive development of the branch is possible only with its transition to an industrial base, and this makes new demands of agricultural animals, especially cattle. It must be highly productive, adapted to long-term stall upkeep and resistant to disease.

For many years now the qualitative improvement of cattle has been moving in two directions in the republic--pure-breed reproduction and crossbreeding of animals of different breeds.

The work of breeders is such that they must wait for years to see the results of their work. The Department for Breeding Agricultural Animals of our institute has been working for over 20 years to develop a new, highly productive type of dairy cattle by crossing the leading Armenian breed, the Kavkaz Brown, with the Jersey and the Holstein-Friesian. But it is only now that we can talk about the results we have achieved.

Before I discuss this I will explain why we selected these breeds. The Kavkaz Brown variety is the most sturdy and hardy with regard to the climatic conditions of our republic. However, it has certain shortcomings--a slow rate of letting down of milk and a small-volume udder that is disproportionate, resulting in various diseases from mechanical milking. The cows respond to increased feed norms with obesity; milk output increases very little. Our goal was to increase milk productivity. This is why we turned to the Holstein-Friesian and Jersey breeds, well-known in relation to this. The former breed is known for its high milk productivity and the latter--for the high fat content in milk and for the model form of its udder. In summary, we are trying to develop a new type of cow that will provide 5,000 kilograms of milk with a fat content of no less than 4.1-4.2 percent with the first lactation and that will weigh 550 kilograms.

At the present time we already have three-breed crossbreeds. The animals of the new type differ from the mother breed, Kavkaz Brown, in body proportions, rate of maturity, a strong constitution, resistance to disease, a large return on feed, color--they are dark brown or black, and most importantly--productivity. The studies we have done have shown that the average daily weight gain of crossbreed heifers and bullocks from birth to 18 months of age comprises 679 and 765 grams; of calves of the Kavkaz Brown breed--523 and 714 grams.

Naturally we are more interested in milk productivity. Here the new animal type has a clear advantage. Three-breed crossbreeds yielded 3,560 kilograms of milk during the first lactation; the Kavkaz Brown--3,232. In the former the fat content of milk equalled 4.2 percent; in the latter--3.91. The amount of milk fat obtained from each new-type cow equalled 140 kilograms; from animals of the mother breed--88. However, these are still average results. Some cows of the new type yielded 4,200 to 5,642 kilograms of milk.

At the same time research has demonstrated still another feature of these animals. In the beginning we set ourselves the goal of breeding animals suitable for upkeep only in the foothill zone of the republic. For this reason we selected the summer farms of Abovyanskiy and Razdanskiy rayons as well as the teaching-experimental enterprise of the institute for our studies. However, the fact that the cows and replacement calves of the new type spent time in eylagas [Translation unknown] like other animals in no way altered their productivity. As previously, animals gained weight at a high pace and retained their high milk productivity. Young bulls which were raised moderately intensively were delivered for slaughter at the age of 18 months weighing 452 kilograms on the hoof (in the kolkhoz of the village of Akunk) and 422 kilograms (in the kolkhoz of the village of Aramus). This means that the type of animal that has been developed can be utilized successfully under mountainous conditions if there is a dependable feed base.

It remains to be said that in the course of the entire experiment, which we are continuing, the animals of the new type are kept in the same environment as animals of the Kavkaz Brown breed. Including the new type in the herd enables us to raise the productivity of the public herd at a rapid pace. Let me present some examples. In the kolkhoz of Akunk village of Abovyanskiy Rayon the average milk yield per cow in 1978 was 2,514 kilograms; meat production--323 quintals. In 1983 these indicators were already significantly higher--3,553 and 650 quintals respectively. The number of animals has remained as before, but two and three breed crossbreeds comprise 70 percent of the herd already.

In comparison with 1978 indicators in the kolkhoz of the village of Aramus (also Abovyanskiy Rayon) increased for the same reasons. Here milk productivity in cows increased by 1,638 kilograms, and meat production--by 220 quintals while the size of the herd remained the same.

While continuing scientific investigations, we are elaborating methodological directives on the organization and implementation of breeding work with the aim of developing a large mass of dairy cattle in the republic's foothill area.

This is where we feel our contribution to the fulfillment of this country's Food Program lies.

AGRO-ECONOMICS AND ORGANIZATION

MINISTER REVIEWS 1983 CROP, LIVESTOCK PROCUREMENT PERFORMANCE

Moscow ZAKUPKI SEL'SKOKHOZYAYSTVENNYKH PRODUKTOV in Russian No 1, Jan 84 pp 1-4

/Article by I. Shtodin, USSR first deputy minister of procurement: "Toward New Goals"/

/Text/ Implementing the decisions of the 26th CPSU Congress and of the May (1982) and subsequent plenums of the Central Committee of the Communist Party, the Soviet people successfully completed the fulfillment of the basic indicators of the national economic plan for the country's economic development for the third year of the 11th Five-Year Plan and began the fight for new goals with great creative enthusiasm. The plan for economic and social development for 1984 approved by a session of the USSR Supreme Soviet is aimed at a further rise in the well-being of the Soviet people. As before, problems of the realization of the Food Program, which has become a general party and public cause, occupy the central place in the plans of the party and the entire Soviet nation.

More grain, sugar beets, potatoes, vegetables, fruits, berries, livestock, poultry and milk than last year are to be purchased in the country in 1984. This year's assignments are stepped-up, but realistic. For their fulfillment it is now important to analyze past year's results in every labor collective, rayon, oblast, kray and republic. The persistent labor of kolkhoz members and sovkhoz workers and the purposeful organizational and political-educational work of party, Soviet, agricultural and procurement bodies contributed to the fact that last year, as compared with 1982, more grain, potatoes, sugar beets, vegetables and fruits were grown and procured, the shifts in the development of animal husbandry were noticeable and its feed base was strengthened.

In 1983 many oblasts, krays and republics made noticeable advances in the development of grain production and made a worthy contribution to the fulfillment of the assignments of the USSR Food Program. Kolkhozes and sovkhozes in the Belorussian, Azerbaijan, Uzbek, Lithuanian, Latvian, Estonian, Kirghiz, Tajik and Armenian Union republics fulfilled their obligations for the sale of grain from the 1983 harvest to the state and ensured a significant increase in grain procurement during the 11th Five-Year Plan, as compared with the average annual level attained in 1976-1980.

Last year Russia's grain growers made a significant contribution to state resources. A total of 47 autonomous republics, krays and oblasts in the Russian Federation coped with the obligations for the sale of grain to the state and greatly exceeded the average annual level of its procurement attained during the 10th Five-Year Plan. The selfless labor of agricultural and procurement workers in the Bashkir ASSR, Krasnodar and Stavropol krays and Orenburg, Saratov, Kuybyshev, Voronezh, Tambov, Penza, Kursk, Belgorod and many other oblasts, which made an important contribution to the formation of state grain resources, deserves special respect and gratitude.

In the Ukrainian SSR significant advances were made by kolkhozes and sovkhoses in Kharkov, Volyn, Ivano-Frankovsk, Lvov, Sumy, Rovno, Ternopol and Chernovitsy oblasts, which fulfilled the plans for the sale of grain to the state.

In the Kazakh SSR Uralsk Oblast made an outstanding advance in the production and procurement of grain. Two grain procurement plans--this is the result. Aktyubinsk Oblast completed the fulfillment of the assignments of the current five-year plan. Alma-Ata, Kzyl-Orda, Dzhezkazgan, Taldy-Kurgan, Chimkent and East Kazakhstan oblasts fulfilled the plans for the sale of grain to the state.

Kolkhozes and sovkhoses in Kustanay Oblast fulfilled the plan for 3 years of the five-year plan for the sale of millet and buckwheat to the state and in East Kazakhstan Oblast and Altay Kray, buckwheat. The state received a great deal of millet from Saratov Oblast. Agricultural and procurement bodies in these oblasts approached the fulfillment of assortment plans and the observance of state procurement discipline with great responsibility and exacting demands.

Many grain receiving enterprises prepared themselves well for the acceptance of the 1983 harvest and continuously accepted all the procured grain around the clock. Their technical equipment increased considerably. Grain transportation according to an hourly schedule was used widely. Thousands of heavy-freight machines and motor vehicle trains were used on the routes from the field to the elevator. Their efficient servicing was ensured. Enterprise workers worked very strenuously in order to accept and preserve the harvest. They coped with this honorable task.

The 1983 state plans for the purchases of vegetables, milk, eggs, tea leaves, raw cotton, kenaf, silk cocoons, wool, furs and pelts were fulfilled successfully.

Many kolkhozes and sovkhoses not only coped with the fulfillment of the annual volumes of delivery of agricultural products to the state, but also liquidated the debt on their purchases formed during the first years of the 11th Five-Year Plan.

The fulfillment of 1981-1983 state plans (in total years) for the procurement of meat, milk, eggs and wool was ensured in the Uzbek SSR, the Georgian SSR, the Azerbaijan SSR and the Turkmen SSR. All the Union republics fulfilled the assignments of 2 years of the current five-year plan for egg purchases. The 3-year plan for karakul purchases was fulfilled throughout the country.

The widely developed socialist competition for a successful performance of livestock wintering and an increase in the production and purchases of livestock products during the winter period of 1982/83 played an important role in these advances. The decree of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Central Committee of the Komsomol on this problem expressed firm confidence that in the new year the workers of the agroindustrial complex, utilizing the achievements of science and advanced experience, would raise even higher the banner of the socialist competition for a steady increase in the production and procurement and for an improvement in the quality of meat, milk and other products and the realization of the USSR Food Program.

Appreciating the advances made and rendering those who increase the homeland's wealth with their selfless labor their due, at the same time, the shortcomings existing in the organization of the production and procurement of grain and other agricultural products must be noted. It cannot be considered correct that in a number of rayons there is a tendency toward a reduction in areas sown with wheat without a compensating growth of its yield. This has led to a decrease in the gross output and purchases of the grain of this crop, especially of strong and durum varieties. The plans for the purchases of the grain of these crops in the RSFSR and the Kazakh SSR have been greatly underfulfilled in recent years.

In the Russian Federation and the Ukrainian SSR many oblasts, krais and autonomous republics do not fulfill the plans for purchases of groat and pulse crops. The nonfulfillment of the state order for crops in some rayons has assumed a systematic nature and local agricultural and procurement bodies, which often are satisfied with the fulfillment of the plans for grain purchases as a whole, do not take efficient measures to rectify the existing situation. For example, last year Belgorod Oblast fulfilled the grain purchase plan 101 percent. At the same time, the plans for such grain crops as millet, buckwheat, corn, barley and pulse crops remained underfulfilled there. A similar situation exists in Tula, Ryazan, Orel, Kursk, Tambov, Penza and many other oblasts, krais and autonomous republics in the RSFSR.

In the Ukrainian SSR the established volumes of grain purchases even during productive years often remained underfulfilled for six to seven grain crops envisaged in the plan. The nonfulfillment of the plans for purchases of grain in the established assortment obviously contradict the constantly growing needs of the country's population for groats and high-quality macaroni, as well as of the mixed feed industry for raw materials. Owing to the shortage of buckwheat, millet and high-grade durum wheat, groat plants and the macaroni industry cannot ensure the output of buckwheat groats, hulled millet and high-quality macaroni in the necessary volumes and the shortage of corn and pulse crops leads to a deterioration in the quality of mixed feed.

What are the reasons for the existing situation? First of all, the low level of production of groat and leguminous crops, owing to which their gross output often is insufficient for the fulfillment of plans and contractual obligations. How, for example, kolkhozes and sovkhoses in Ryazan, Tula, Smolensk, Bryansk, Kirov, Gorkiy, Kaluga, Vladimir and some other oblasts can fulfill

their contractual obligations for the sale of buckwheat to the state when they produce it below purchase plans? Farms in these oblasts annually receive much more buckwheat for seed purposes from state resources than they deliver to grain receiving enterprises.

The low marketability and breach of state procurement discipline are also causes of the nonfulfillment of purchase plans. Some farms, taking advantage of the lack of control on the part of procurement bodies, delay the sale of some grain crops to the state, leaving them for intrafarm purposes. For example, last year kolkhozes and sovkhoses in Tula Oblast from the threshed volume of buckwheat sold only 23.7 percent of the gross output, or 15.4 percent of the sale plan, to the state.

Over a long period kolkhozes and sovkhoses in some oblasts in the Ukrainian SSR have not fulfilled the plans for the purchases of corn. At the same time, a large amount of corn remains on farms.

In Dnepropetrovsk Oblast from the gross output 24 percent of the plan for its purchases was delivered to state resources. More than 72 percent of the corn yield remained on farms in Poltava Oblast, although the purchase plan was fulfilled only 36 percent.

There are and can be no justifications for these cases. All of them are evidence of the low level of state procurement discipline.

In the process of procurement state inspectorates for the purchases and quality of agricultural products, administrations of grain products and grain receiving enterprises in some oblasts and krais pay little attention to pulse crops and often tolerate the fact that the plans for their purchases are not fulfilled, while large quantities of peas remain on farms. The grain of this crop remaining in Penza, Orel, Tula, Belgorod and a number of oblasts in the Ukrainian SSR in 1983 exceeded several times the amount needed for the fulfillment of the plans for its purchases.

The decline in the production and purchases of oil crops, primarily sunflower seeds and soybeans, is alarming. The fulfillment of the plans for the purchases of these most valuable crops is not ensured in a number of oblasts in the RSFSR, the Ukrainian SSR and the Georgian SSR year after year. Individual state procurement inspectorates do not take decisive measures against the decrease in the areas sown with sunflower seeds on some kolkhozes and sovkhoses, although precisely this leads to the nonfulfillment of the plans for the sale of oil seeds to the state.

Such cases must not be repeated in 1984. The task of state inspectorates for the purchases and quality of agricultural products and of administrations of grain products is to envisage, together with kolkhozes, sovkhoses and agricultural bodies, in the production and financial plans of farms all the necessary crops and to attain the performance of 1984 spring sowing in strict correspondence with the plans for the purchases of grain according to the assortment. In the course of sowing it is necessary to establish constant control on every farm over the sizes of sown areas for every crop for which the purchase plan is established.

The Food Program requires that procurement officials persistently fight for the further improvement in the quality of grain. In the last few years high-quality wheat has arrived from farms in Krasnodar and Stavropol krais and from northern rayons in Kazakhstan. Kolkhozes and sovkhoses in Kustanay, Kokchetav and North Kazakhstan oblasts fulfilled the plan for 3 years of the five-year plan for the sale of strong wheat to the state. The Sovkhoz imeni Kozlov in Naursumskiy Rayon, Kustanay Oblast, sold 47,700 tons of wheat from the 1983 harvest, of which strong wheat comprised 99.6 percent. This is a good example for the other big grain farms in Kazakhstan, as well as in the entire country. The experience of the advanced farm should be utilized everywhere.

In Saratov, Rostov, Odessa and a number of other oblasts, where there are favorable soil and climatic conditions for the cultivation of valuable grain, the procured wheat is of a lower quality and, when processed into high-grade flour, needs the addition of improvers--strong wheats. Wheat of a lower quality is grown on farms in central chernozem oblasts, Central and Volgo-Vyatka regions and the forest-steppe zone of the Ukrainian SSR.

In accordance with the plan approved for 1984 a significant increase in grain procurement is envisaged. At the same time, special attention is paid to its purchases according to the strictly established assortment. Directors of ministries of procurement of the Union republics and managers of state procurement inspectorates of autonomous republics, krais, oblasts and rayons must remember that on an equal footing with workers of agricultural bodies and other members of agroindustrial associations they are responsible for the end result--the fulfillment of state purchase plans. In connection with this now, when forward contracts for 1984 are concluded, state procurement inspectorates should see to it that forward contracts fully correspond to the established plans for purchases of grain, groat, leguminous and oil crops, keeping in mind that every kolkhoz and sovkhos must fulfill the planned assortment in 1984.

The tasks facing sugar beet procurement are no less important. In the sugar beet planting regions where agricultural workers use industrial methods of sugar beet growing, where state procurement inspectorates purposefully control the course of procurement, manifesting concern for the accumulation of the harvest and its full inclusion in state resources, the plans for sugar beet purchases are fulfilled successfully. These are primarily Belgorod, Kuybyshev, and Saratov oblasts and Krasnodar and Stavropol krais. In 1983 kolkhozes and sovkhoses in Ryazan, Tula, Penza, Ulyanovsk and Bryansk oblasts and the Moldavian ASSR fulfilled the plan for the sale of sweet roots.

Meanwhile, farms in age-old sugar beet planting oblasts, that is, Voronezh, Tambov and Lipetsk oblasts, did not ensure the prompt delivery of roots and incurred losses of raw materials, which resulted in a significant nonfulfillment of sales plans. Farms in Taldy-Kurgan and Dzhambul oblasts, the Moldavian SSR and a number of oblasts in the Ukrainian SSR did not cope with the planned assignments of 1983.

There are significant shortcomings in the organization of potato, fruit and vegetable purchases. In the RSFSR, the Ukrainian SSR and the Belorussian SSR for a number of years a large number of farms have not fulfilled the established plans for the procurement of these crops. Farms in the Kazakh SSR and the Georgian SSR have underfulfilled the plans for the purchases of potatoes and all types of vegetables and fruits for 3 years of the current five-year plan. Insufficient fruits, berries, grapes and melon crops are still procured. At the same time, there are frequent cases of refusal on the part of procurement officials to accept the vitamin output presented by farms and losses of fruits and vegetables on the way from the garden to the consumer are still big. Here there is a big field of activity for all the partners of the agroindustrial complex.

In 1984 ministries of procurement of the Union republics and state procurement inspectorates in oblasts, krays and rayons must intensify their control over the production and procurement of potatoes, vegetables, fruits, berries and melon crops and give all possible help to kolkhozes and sovkhoses. Special attention must be paid to ensuring in 1984 the production of these products by every farm in quantities necessary for the fulfillment of the state plan for their procurement and prompt deliveries to consumers of the all-Union stock. No lesser attention should be paid to the quality of potatoes and vegetables and to reducing their losses to a minimum.

The USSR Food Program attaches great importance to the further increase in the production and procurement of livestock products. As is well known, the 26th CPSU Congress established this sector as a shock front in rural areas. Owing to the vast help of the state and to the selfless labor of farm workers it was possible to halt the recession in the production and procurement of livestock products, primarily milk and meat.

In 11 months of last year the sale of all types of livestock and poultry grew on farms in 13 Union republics. At the same time, in the Belorussian, Lithuanian, Moldavian, Latvian and Estonian Union republics the increase comprised from 9 to 22 percent. The gross milk production increased in all the Union republics except for the Kirghiz SSR. Last year more eggs and wool were obtained than during that time in 1982. Quarterly plans for the deliveries of meat, milk and eggs to the all-Union stock were also fulfilled.

The quality of livestock products improved. Processing industry enterprises received more first-grade milk and livestock standard in its live weight and degree of fatness. In 9 months of 1983 the country's kolkhozes and sovkhoses delivered cattle of an average weight of 353 kg per head, or 10 kg more than during the same time in 1982, to the state. As a result of this gain, state resources additionally received 193,000 tons of beef (in live weight). The average weight per head of hogs increased by 4 kg, or the total weight gain was 108,000 tons. As a result of the increase in the live weight of cattle and hogs alone, during the indicated time more than 300,000 tons of livestock were additionally delivered to the state, for which kolkhozes and sovkhoses received more than $\frac{1}{2}$ billion rubles.

The results attained demonstrate that, in practice, every farm can fulfill the established plans for the sale of milk and meat to the state. However, in the Kazakh SSR 57 percent of the total number of farms did not fulfill the plan for 9 months of 1983 for the purchases of livestock and poultry, 45 percent, milk and 10 percent, eggs. Nor did state procurement inspectorates in individual oblasts and rayons in the republic sufficiently champion state interests.

Many farms in the Belorussian, Georgian, Kirghiz, Turkmen and a number of other Union republics do not fulfill state plans for the sale of meat, milk and other types of livestock products. This leads to the fact that every year state resources do not receive a significant quantity of livestock products. State procurement inspectorates in the localities do not always pay proper attention to lagging farms, do not promptly uncover and eliminate the causes of the deficiency of products and do not sharply raise these problems in councils of agroindustrial associations.

Intensive factors in the management of animal husbandry are not utilized properly everywhere. In January-September 1983 kolkhozes and sovkhoses in the Uzbek SSR, the Lithuanian SSR and the Estonian SSR delivered cattle of an average live weight of 393 to 430 kg to processing enterprises and on farms in the Georgian SSR and the Kirghiz SSR it was only 257 to 276 kg.

The average daily weight gains in fattening animals are still low on many farms. For example, on kolkhozes and sovkhoses in Astrakhan and Irkutsk oblasts and the Dagestan and Kalmyk autonomous republics weight gains in fattening young cattle were only 250 to 350 grams per head in 9 months of 1983, which is two-thirds to one-half lower than on farms in the Mari ASSR and Belgorod and Voronezh oblasts. The possibilities of increasing meat production at livestock complexes are not utilized sufficiently. Many of them do not cope with the fulfillment of the established assignments for the sale of products to the state.

Considerable losses of milk occur on farms when it is delivered to the receiving centers of the processing industry with a fat content below the base one. As a result of this alone 499,000 tons of milk were not credited to RSFSR kolkhozes and sovkhoses and 519,000 tons, in the Ukrainian SSR. It should be taken into consideration that a high fat content of milk is the source of additional output and, accordingly, of an increase in the income of farms. The experience of the Baltic Republics attests to this. Kolkhozes and sovkhoses in these republics in 9 months of last year obtained 48 million rubles for a higher fat content of milk. More than 150,000 tons of output were additionally credited toward their sale plan.

The 26th CPSU Congress noted that kolkhozes and sovkhoses were and remained the basis for socialist agriculture, but, at the same time, the capabilities of private plots must not be overlooked. On the whole, the purchases of surplus livestock products on the private subsidiary farms of citizens have been made in a more organized way. However, in a number of oblasts, krays and republics local resources for an improvement in the population's food supply are not utilized fully. Attention to private plots has decreased in some rural

areas in Bryansk, Novosibirsk and Tomsk oblasts. The population's cattle stock in a number of rayons in the Karelian ASSR has decreased, as a result of which the purchases of surplus meat and milk have been reduced here.

In the Uzbek SSR, the Kazakh SSR and the Kirghiz SSR on 1 October 1983, as compared with the same date in 1982, less livestock and poultry surplus was purchased from citizens. These and other facts indicate that some agricultural and procurement bodies do not yet manifest proper persistence for a fuller inclusion of surplus livestock products produced on the population's private farms in state resources.

In a number of Union republics the shortcomings in the mastering of hide and skin resources on kolkhozes and sovkhoses are eliminated slowly, a significant number of hides and skins are not procured, are kept too long on farms and some of them are subjected to spoilage.

There is now a crucial season--livestock wintering--in animal husbandry. To carry it out successfully is a task of paramount importance. More feed of all types and of a better quality than during past years was stored for public animal husbandry for the winter period. A great deal is done on farms to efficiently use feed and to prepare it for animal feeding. All this contributes to the further increase in the productivity of livestock and poultry and to the maintenance of rates of production and purchases of meat, milk and other products under winter conditions.

The direct duty of workers of state procurement inspectorates and procurement organizations is to give the maximum possible help to kolkhozes and sovkhoses in carrying out livestock wintering in an organized way, in ensuring an increase in the production of livestock products during this period and in maximally drawing them into state purchases.

In the new year workers in procurement bodies together with specialists of agricultural organizations and the entire agroindustrial complex should pay constant attention to reducing losses of agricultural products. The preservation of the grain accepted for state resources should be the object of special concern. It is necessary to strictly follow the storage of potatoes, fruits and vegetables. These problems must be regularly submitted to councils of agroindustrial associations for consideration.

The state of the material and technical base of procurement and processing enterprises is one of the decisive conditions for the further increase in state purchases of all types of agricultural products and an improvement in their quality and preservation. State procurement inspectorates should intensify the control over its development and prompt readiness for the season of mass procurement of grain, oil and industrial crops, livestock products, potatoes, fruits and vegetables.

The further introduction of advanced forms and methods of procurement requires special attention on the part of procurement officials. The acceptance of products at the places of production, their centralized delivery from farms by industrial transport, container shipments and the delivery of products

directly to the trade network contribute to their fullest preservation, relieve kolkhoz and sovkhos specialists from sales concerns and have a big economic effect in the national economy.

Procurement officials in the Bashkir ASSR, Krasnodar and Stavropol krays and Leningrad, Smolensk, Ryazan, Voronezh and some other oblasts have attained good results in the acceptance of fruit and vegetable products at the place of production. In many oblasts in the Ukrainian SSR potatoes, fruits and vegetables are shipped in containers. Direct "field-store" relations expand in Leningrad, Kharkov and Sverdlovsk oblasts year after year.

In the procurement of livestock products advanced methods are widely introduced in the Estonian SSR, where the livestock and poultry accepted on farms comprise 69 percent of the total volume of purchases, in the Lithuanian SSR, 65 percent and in the Belorussian SSR, 63 percent.

Often, however, kolkhozes, sovkhoses and procurement organizations poorly introduce innovations and cannot overcome the lack of departmental coordination. For example, new procurement forms are developed slowly in the Kazakh SSR, where only 11 percent of the livestock and poultry and 26 percent of the milk are accepted on farms, and in the Azerbaijan SSR, 18 and 6 percent respectively. The situation is not better in the Turkmen SSR. Livestock products are not accepted at the place of production in the Uzbek SSR. Not many fruits and vegetables are accepted on farms in this republic. Such a method of fruit and vegetable procurement is also introduced slowly in the Belorussian, Azerbaijan, Georgian, Turkmen and Baltic Union republics.

Workers of the agroindustrial complex and managers and specialists of state procurement inspectorates must seek ways to eliminate such cases and more persistently strive for the introduction of advanced procurement methods. In brief, it is now important to consolidate positive results and to decisively eliminate the factors hampering our progress.

This year ministries of procurement of the Union republics and state inspectorates for the purchases and quality of agricultural products in republics, krays, oblasts and rayons must stir up the activity of the procurement apparatus, manifest creativity and high-mindedness in the realization of the decisions of the 26th CPSU Congress and the May and November (1982), as well as June and December (1983), plenums of the CPSU Central Committee and make their contribution to the fulfillment of the USSR Food Program.

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AGRO-ECONOMICS AND ORGANIZATION

NEED TO INCREASE PRIVATE PLOT PRODUCTION

Moscow TRUD in Russian 5 Feb 84 p 2

[Article by Doctor of Economic Sciences, Professor V. Kiselev, under the rubric Food Program--A National Concern: "Private and Public Sectors--How To Combine These Interests in Private Plot Farming"]

[Text] "Much is written in the papers about private plot farming. They say it should be supported, helped in every way. But, in my opinion there is more harm than use from private plots--we are raising owners and speculators. Isn't that so?"

A Koz'min
Mechanical expert
Stavropol'skiy Kray

This is an angry letter, but it is not the only one in our mail. For this reason, we asked Doctor of Economic Sciences, Professor V. Kiselev, to comment on it.

Is the role of private plots so great that it should be regarded as an important national economic problem? Let us look at the statistics. Over half of all potatoes and almost a third of all vegetables, meat, milk and eggs are produced on private plots. It is true that a large part of this production is consumed by the rural population itself--that is what it was intended for. But, the city dweller also benefits considerably: over 20 percent of the gross output is sold through kolkhoz markets and cooperative trade.

It is understandable that any reduction of private plot production is extremely undesirable at this time. From 1971 to 1980 the gross output of private plot farming decreased by 4 percent. Also, the number of people, cultivating private plots, has decreased. Today, almost a third of the families, working in villages, do not keep livestock.

Why is production being reduced on private plots? One of the main reasons is a change in the social-demographic structure and value orientations of the rural population. The young people's, and this is natural, sphere of leisure time interests is shifting increasingly more in the direction of urban entertainment, television, personal motorcycle, and increasingly more time is spent on socializing with other people.

Low retail prices for many food products also play a substantial role; in a number of cases they are lower than the production costs, you know. Sometimes, it is more expensive for a peasant to raise livestock than to buy meat at a store. Moreover, prices at kolkhoz markets and in cooperative trade are quite high. They are two, and even five-times higher than the state retail prices. This would seem to be a real incentive for those who want to earn some money. However, this situation has its own problems and its own limitations: traffic capacity of markets is small, delivery of food products is difficult, and storage is poorly organized. For this reason, most market trade is more of a one-time event than a rule.

But, there are products whose profits cover all expenses and are worth the trouble. Primarily, these are greens, early cucumbers and tomatoes, melons and rare crops--pomegranates, walnuts and citrus fruit, whose cultivation may bring profits in the thousands. Here, the earnings for work in the public sector are far below the income from a private plot. Then, participation in the public sector assumes a formal nature: to complete just the bare minimum of work so that a plot of land may be obtained. Here is where the conflict between private and public sector interest arises, a conflict fraught with serious economic and moral losses.

How should future development of private plot farming be evaluated under such conditions, what should our strategy be in relation to it? The answer may be given only from the viewpoint of public sector interests. The public is interested in an increase in the quantity and variety of food products and, therefore, private plot farming should be used for these purposes. As we said, a considerable amount of vegetables, meat and milk is produced there. And, this takes place despite the fact that only 2.7 percent of all arable land and 1.7 percent of the hayfields in the country are in private use. (Let us note, parenthetically, that in no way may a conclusion be drawn about exceedingly high productivity of private plot production. Livestock production produced there is based mainly on public fund fodder and public pastures.) Nevertheless, fuller utilization of the potential of private plot production means getting along without additional millions in capital investments.

But, this is not all. Private plot farming allows fuller realization of labor and resource potentials. Many pensioners, who no longer participate in public sector production, engage in private plot farming, household wastes are utilized and such production is based primarily on land that is not suitable for public use. So we see, all the arguments are--pro.

Private plot farming needs only to be correctly combined with public sector farming. The situation should be organized in such a way that a private plot does not become a source of excessive profits, and does not take people away from work in kolkhozes and sovkhoses. Only one approach is feasible here, not prohibitions and limitations, but expansion of food production for the market place. With an increase of sales volume the price will decrease by itself and, moreover--this is very important--the excessive profits from private plot farming will also disappear.

What should be done to help private plot farming? First, production on small plots should be mechanized to the maximum feasible extent, and the manufacture and sale of specialized machinery should be arranged, including--so much has already been said about this--inexpensive and good minitractors. The sale of high quality seed, mineral fertilizers and plant insecticides to the public should be organized. So far this does not exist, and all essential elements of agricultural production are at times "borrowed" from the public sector. Is it any wonder that this circumstance promotes a negative attitude on the part of managers of farming enterprises and regions toward private plots?

Second, opportunities for sale of surplus products should be improved and facilitated. Right now the cooperative trade network is weak and unable to cope with high volumes of saleable production. The kolkhoz market has many of its own difficulties, and they are mainly the result of the still persisting attitude toward markets as something antisocial. But let us think it over, what is this caused by? Largely by that which is known: the person standing behind the counter at a market is not the one who produces the food products. You must agree, it is practically impossible to work in a public field, on a private plot and to sell as well. For this reason representatives of family clans, and often of organized groups, who engage in buying up food products from the population and selling them, dominate the markets. These people have well-developed connections, transport and friends at the markets. Their profits are especially high, and this income may be qualified as unearned with good reason. You can't point them out (their documents are in much better order than those of some peasants who happened to come to the market), but it is precisely these people who inflate prices and give rise to the unhealthy spirit of easy profits.

What is the solution? The main emphasis should be on developing cooperative trade and buying farm products on the spot. There will be demand on the part of cooperatives on profitable terms, and supply on the part of peasants will grow. But, the market itself should not be forgotten. New bazaars should be built and transport service improved. And, markets should be protected from any kind of secondhand dealers, middlemen and speculators. Dnepropetrovsk may serve as an example. A service office has been established there. It buys up food products that are brought in and sells them on a commission basis. Storage facilities and transport service for the rural population are organized according to contracts.

Private plot and public sector production have to be reconciled, and harmony of private and public sector interests has to be insured. Nowadays, not every participant in kolkhoz production wants to work on a private plot. There is not enough time or strength. Moreover, we have a category of people who are attracted to individual labor on kolkhoz land reserved for them. Why not help them? The family contract is of interest as one form of participation in the public sector. Perhaps, from an economic viewpoint it will be efficient, and from a social viewpoint--expansion of this type of labor arrangement will be harmless. Those persons, who want, receive a large plot of land, livestock for fattening, essential provision of services, and agro-technical or veterinary help. And, in accordance with their contract, they

sell to a kolkhoz or sovkhoz the stipulated tons of production based on established agreed prices, and surplus is sold wherever it is most convenient for them.

If a collective contract has already been in existence for about 20 years, then an individual or family contract would appear only occasionally and would not be particularly encouraged. But, in recent years the practice of family contracts for raising livestock has been expanding. The kolkhoz provides the fodder according to established standards and buys the livestock, at slaughter weight, at stable contract prices. This is profitable for a kolkhoz as it allows saving on capital investments, and profitable for the workers as it makes their earnings dependent only on their own diligence.

As we see, the individual form of labor in agriculture may assume the most varied forms. The only important thing is that this form of labor not be in conflict with public sector interests. As the quantity of products increases at kolkhoz markets and in cooperative trade the prices will be closer to state prices, the profitability of public sector and private plot production will even out, and the motive for turning a private plot into a source of easy money will disappear.

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CSO: 1824/229

AGRO-ECONOMICS AND ORGANIZATION

BELORUSSIAN, BALTIC SCIENTISTS CONFER ON APK PROBLEMS

Minsk SEL'SKAYA GAZETA in Russian 9 Feb 84 p 1

/Article: "Scientists In Behalf of Agriculture"/

/Text/ Last year the collectives of agricultural scientific-research institutes in Belorussia and the Soviet Baltic republics made a great practical contribution towards the socio-economic development of the agroindustrial complex. The issuing of 376 author's licenses and the handing down of positive decisions regarding inventions serve to confirm the innovative and promising nature of the work performed by the region's scientists. Industrial complexes which employ the industrial technology in animal husbandry operations have produced 25 percent of the milk, 36 percent of the beef and more than one half of the pork. The sowing area for varieties developed by the Western Breeding Center exceeded 2 million hectares.

These and other facts were furnished in a report by Academician-Secretary T.N. Kulakovskaya and in speeches delivered during the annual meeting of the Western Branch of VASKhNIL /All-Union Academy of Agricultural Sciences imeni V.I. Lenin/, held in the city of Minsk on 8 February with the participation of leading workers of party, soviet and economic organs of Belorussia, Latvia, Lithuania and Estonia.

The meeting was opened with an introductory statement by secretary of the Central Committee of the Communist Party of Belorussia N.I. Dementey.

The speakers placed emphasis on the fact that the November (1982), June and December (1983) plenums of the CPSU Central Committee required that maximum effort be directed towards activating scientific research to the maximum possible degree in the interest of carrying out the key economic tasks. The region's scientists are presently devoting a great amount of attention to achieving all-round solutions for the economic, technological and social problems associated with the Food Program.

In addition to approving the practical work being carried out by the Western Branch of VASKhNIL, those who participated in the meeting at the same time pointed out some existing shortcomings. The region's republics, in terms of the many indicators for farming and animal husbandry output production, are still lagging behind in carrying out the tasks of the Food Program. Defects in the

planning and coordination of scientific studies are inhibiting the effectiveness of completed works and holding up the introduction of new developments. Very little attention is being given to studying the problems concerned with the use of reclaimed lands and there is an acute need for more extensive use of progressive technologies and also for the programmed cultivation of high yields. The union between researchers and practical workers lacks purposefulness and persistence in solving the "protein problem" -- a chief concern with regard to strengthening the feed base. The scientists, planners, designers and field and farm workers are expected to furnish more energetic and effective assistance.

Those who participated in the meeting outlined a business-like and specific program for accelerating the implementation of fundamental and applied studies and for concentrating forces and resources on the more important trends in scientific-technical progress in agriculture.

The following individuals participated in the work of the annual meeting: secretary of the Central Committee of the Communist Party of Lithuania V.S. Astrauskas, secretary of the Central Committee of the Communist Party of Estonia A.I. Upsi, deputy chairman of the Estonian Council of Ministers I.I. Bernatavichyus, 1st deputy chairman of the Belorussian Council of Ministers and chairman of the committee of the Presidium of the Belorussian Council of Ministers for problems concerned with the agroindustrial complex Yu.M. Khusainov, instructor for the CPSU Central Committee V.I. Vasilevskiy, vice-president of VASKhNIL A.N. Kashtanov and deputy minister of agriculture for the country B.A. Runov.

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